

AMENDMENTS TO THE CLAIMS

Please amend claims 1 – 16, as set forth in the listing of claims that follows:

Listing of Claims

(insert marked up claims)

1. (Currently Amended) An occupant recognition system for vehicles comprising ~~at least one pressure sensor arranged beneath the foam of a vehicle seat, at least one temperature sensor and an electronic control and/or evaluation unit to which the sensors are connected, ;~~
characterized in that means are provided at least one pressure sensor disposed adjacent a foam vehicle seat;
at least one temperature sensor spaced from said seat and operative to monitor ambient air temperature within said vehicle; and
an electronic control and evaluation unit connected to said sensors and operative to match the time behavior, in particular the time behavior present on of sensed changes in the ambient air temperature, of the output signal (T_{ECU}) of the temperature sensor arranged at a distance from the pressure sensor or from the seat foam to the time behavior of the temperature (T_{FOAM}) prevailing in the region of the pressure sensor or of the seat foam.
2. (Currently Amended) An occupant recognition system in accordance with claim 1, ~~characterized in that the~~ wherein a correspondingly matched output signal (T_{ECU}) of the temperature sensor in the electronic control and/or and

evaluation unit is used for the compensation of the temperature dependence of the pressure measured via the pressure sensor.

3. (Currently Amended) An occupant recognition system in accordance with claim 1, ~~or claim 2, characterized in that~~ wherein the matching means are ~~associated with~~ embodied within the electronic control ~~and/or~~ and evaluation unit.

4. (Currently Amended) An occupant recognition system in accordance with ~~any one of the preceding claims, characterized in that~~ claim 1, wherein the matching means ~~include~~ includes a low-pass filter ~~(10)~~.

5. (Currently Amended) An occupant recognition system in accordance with claim 4, ~~characterized in that~~ wherein the low-pass filter ~~(10)~~ is provided ~~as~~ comprises a software filter.

6. (Currently Amended) An occupant recognition system in accordance with claim 4 ~~or claim 5, wherein~~ characterized in that a Butterworth filter ~~(10)~~ is provided as the low-pass filter.

7. (Currently Amended) An occupant recognition system in accordance with ~~claim 5~~ claim 4, characterized in that wherein a Butterworth filter of the first order is provided as the low-pass filter ~~(10)~~.

8. (Currently Amended) An occupant recognition system in accordance with ~~any one of the preceding claims, characterized in that~~ the claim 4, wherein parameters of the filter ~~(10)~~ are selected such that the filtered output signal ~~(F₁₀)~~

of the temperature sensor ~~agrees at least~~ substantially coincides with ~~the~~ actual foam temperature (~~T_{FOAM}~~) ~~gained from trial measurements.~~

9. (Currently Amended) An occupant recognition system in accordance with ~~any one of the preceding claims, characterized in that~~ claim 1, wherein the pressure sensor includes a flexible sensor mat filled with fluid.

10. (Currently Amended) An occupant recognition system in accordance with claim 9, ~~characterized in that~~ wherein the pressure sensor supplies a pressure value corresponding to the pressure inside the sensor mat.

11. (Currently Amended) An occupant recognition system in accordance with ~~any one of the preceding claims, characterized in that~~ claim 1, wherein the pressure sensor is ~~arranged~~ disposed directly beneath the seat foam.

12. (Currently Amended) An occupant recognition system in accordance with ~~any one of the preceding claims, characterized in that~~ claim 1, wherein the temperature sensor includes a thermistor.

13. (Currently Amended) An occupant recognition system in accordance with ~~any one of the preceding claims, characterized in that~~ claim 1, wherein the temperature sensor is ~~arranged in the region of~~ disposed adjacent the electronic control ~~and/or~~ and evaluation unit.

14. (Currently Amended) An occupant recognition system in accordance with claim 13, ~~characterized in that~~ wherein the temperature sensor is

~~accommodated in the same~~ disposed in a common housing as with the electronic control ~~and/or~~ and evaluation unit.

15. (Currently Amended) An occupant recognition system in accordance with ~~any one of the preceding claims, characterized in that~~ claim 1, wherein the electronic control ~~and/or~~ and evaluation unit is ~~arranged and fastened~~ disposed beneath the vehicle seat.

16. (Currently Amended) An occupant recognition system in accordance with ~~any one of the preceding claims, characterized in that~~ claim 1, wherein the pressure measured via the pressure sensor is compared by means of the electronic control ~~and/or~~ and evaluation unit with at least one parameter value ~~such as an empty pressure value and/or an allow threshold and that a decision is made in dependence on the result of the comparison whether an airbag is switched on or not, with the relevant parameter value being changed accordingly as part of the compensation of the temperature dependence~~ and a vehicle airbag switch status is changed in response thereto.

17. (NEW) A vehicle occupant recognition system comprising:

at least one pressure sensor adapted to be disposed adjacent a vehicle foam seat cushion;

at least one temperature sensor adapted to be spaced from said foam seat cushion and operative to monitor ambient temperature within said vehicle and to generate an output signal in response thereto; and

a control unit in circuit with said sensors operative to match the time behavior of said temperature sensor output signal to the time behavior of the temperature prevailing in a region of the seat foam adjacent said pressure sensor.